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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1.   This action is in response to communications filed January 3, 2008.

2.   The amendment to the Title "receiving apparatus, receiving system and receiving

method for receiving divided information" has been considered and is acceptable.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chang et al. (hereinafter Chang)(U.S. Publication No. 2002/0178261 A1) in view of

Lassen et al. (hereinafter Lassen)(U.S. Patent No. 7,072,971 B2) and further in view of

Lisiecki et al. (hereinafter Lisiecki)(U.S. Publication No. 2002/0143888 A1).

Regarding claim 1, Chang teaches as follows:

A receiving apparatus (peer, 22, 24, 26 and 28 in figure 1, see, e.g., page 1,

paragraph [0015], lines 1-4) comprising:

An operation section to which an receiving command for receiving one file is

input (search initiation from a first peer wherein the first peer inherently receives the

search command as an input by any input means in a peer computer, see, e.g., page 3,

paragraph [0030], lines 1-5);

A communication section for transmitting transmission request information for

requesting the transmission of the file input to said operation section to multiple storage

apparatuses (a plurality of servers) and for sequentially receiving divided information

blocks (a plurality of downloads) obtained by dividing said information and transmitted

from said multiple storage apparatuses (a plurality of servers are selected from the list

of servers and a plurality of simultaneous downloads is started from the plurality of

servers, see, e.g., page 3, paragraph [0030], lines 23-26 and steps 212 and 214 in

figures 10B and 10C respectively), each of the divided information blocks are received

from each of said multiple storage apparatus; and

A selection section for selecting only said divided information block received first

from one of said storage apparatuses (a plurality of servers, server 1 and server 2 in

figure 4) or a predetermined group of said divided information blocks with respect to

each of said divided information blocks received by said communication section or each

predetermined group of said divided information blocks (if one servers completes the

download first the other download is canceled, page 2, paragraph [0020], lines 8-14 and

figure 4).

Change does not explicitly teach that each of the divided information blocks are

received from each of the multiple storage apparatus.

Lassen teaches as follows:

A file may be divided into sequentially numbered blocks, where the block index

indicates the position of each block (see, e.g., col. 5, line 54 to col. 6, line 7 and figure

1a-1b);

A server (102 in figure 2) or a set of servers serve files to clients (104 in figure 2)

over a network (106 in figure 2)(see, e.g., col. 7, lines 16-61); and

A single server only serve a portion of a file to any number of clients, where other servers serve the rest of the file and the clients download from one or more servers concurrently (see, e.g., col. 9, lines 19-55).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Chang to include concurrent download of each portion of file (blocks) from different servers as taught by Lassen in order to increase the reliability and efficiency of the downloading process in a content delivery network.

Chang does not explicitly teach an output section even though any computer has an output means to output the received information in certain format.

Lisiecki further teaches as follows:

Uploading a content to one optimal site and replicating the uploaded content to the other storage sites (see, e.g., page 1, paragraph [0012], lines 1-15);

An edge server (interpreted as a receiving apparatus, 406 in figure 4) operating in a content delivery network (CDN) is retrieved from a storage site that is optimal for the download (see, e.g., page 1, paragraph [0012], lines 15-18); and

 Edge server delivers the content to the end user's browser (output section to output the content to the end user, see, e.g., page 5, paragraph [0046], lines 24-27 and step 4 in figure 4).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Chang to include data downloading in a content delivery network between end users and storage sites through a CDN edge server (a receiving apparatus) as taught by Lisiecki in order to increase the reliability and efficiency of the

downloading process in a content delivery network.

Regarding claims 2, 3 and 5, Chang teaches all the limitations of claim except for
the management apparatus to map the address of storage apparatuses storing
information to download.

Lisiecki further teaches as follows:

Communication section transmits, to a management apparatus (global traffic
management (GTM) 408 in figure 4), address information transmission request
information for requesting the address information of said storage apparatuses (DNS
request, see, e.g., step 2a in figure 4) in which said information is stored, receives the
address information (IP address) of said multiple storage apparatuses from said
management apparatus (GTM)(GTM identifies optimal storage site, see, e.g., step 2b in
figure 4) and transmits transmission request information for requesting the transmission
of said information to said multiple storage apparatuses on the basis of said address
information (edge server requests content, see, e.g., step 3a in figure 4)(edge server
makes a DNS query to resolve the storage URL to the GTM system, in response,
receives IP address of the storage sites, see, e.g., page 5, paragraph [0046] and steps
2a, 2b, 3a and 3b in figure 4); and

Said management apparatus (GTM), said multiple storage apparatuses (storage
sites) and said receiving apparatus (edge server) set forth in claim 1 are connected via
a communication network (the content delivery network, see, e.g., abstract).

It would have been obvious for one of ordinary skill in the art at the time of the
invention to modify Chang to include the global traffic management as taught by Lisiecki

in order to convert the URL to IP address to find the optimal storage servers by the

global address through the Internet.

Regarding claims 4 and 6, Chang teaches as follows:

A receiving method comprising:

An operation input step of inputting an information receiving command for

receiving one file (search initiation from a first peer wherein the first peer inherently

receives the search command as an input by any input means in a peer computer, see,

e.g., page 3, paragraph [0030], lines 1-5);

A transmission request step of transmitting transmission request information for

requesting the transmission of said file to multiple storage apparatuses (a plurality of

servers), a divided information receiving step of sequentially receiving divided

information blocks (a plurality of downloads) obtained by dividing said file and

transmitted from said multiple storage apparatuses (a plurality of servers are selected

from the list of servers and a plurality of simultaneous downloads is started from the

plurality of servers, see, e.g., page 3, paragraph [0030], lines 23-26 and steps 212 and

214 in figures 10B and 10C respectively), each of the divided information blocks are

received from each of said multiple storage apparatus; and

A selection step of selecting only said divided information block received first

from one of said storage apparatuses (a plurality of servers, server 1 and server 2 in

figure 4) or a predetermined group of said divided information blocks with respect to

each of said divided information blocks or each predetermined group of said divided

information blocks (if one servers completes the download first the other download is

canceled, page 2, paragraph [0020], lines 8-14 and figure 4).

Change does not explicitly teach that each of the divided information blocks are received from each of the multiple storage apparatus.

Lassen teaches as follows:

A file may be divided into sequentially numbered blocks, where the block index indicates the position of each block (see, e.g., col. 5, line 54 to col. 6, line 7 and figure 1a-1b);

A server (102 in figure 2) or a set of servers serve files to clients (104 in figure 2) over a network (106 in figure 2)(see, e.g., col. 7, lines 16-61); and

A single server only serve a portion of a file to any number of clients, where other servers serve the rest of the file and the clients download from one or more servers concurrently (see, e.g., col. 9, lines 19-55).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Chang to include concurrent download of each portion of file (blocks) from different servers as taught by Lassen in order to increase the reliability and efficiency of the downloading process in a content delivery network.

Chang does not explicitly teach an output section even though any computer has an output means to output the received information in certain format.

Lisiecki further teaches as follows:

Uploading a content to one optimal site and replicating the uploaded content to the other storage sites (see, e.g., page 1, paragraph [0012], lines 1-15);

An edge server (interpreted as a receiving apparatus, 406 in figure 4) operating

in a content delivery network (CDN) is retrieved from a storage site that is optimal for

the download (see, e.g., page 1, paragraph [0012], lines 15-18); and

Edge server delivers the content to the end user's browser (output section to

output the content to the end user, see, e.g., page 5, paragraph [0046], lines 24-27 and

step 4 in figure 4).

It would have been obvious for one of ordinary skill in the art at the time of the

invention to modify Chang to include data downloading in a content delivery network

between end users and storage sites through a CDN edge server (a receiving

apparatus) as taught by Lisiecki in order to increase the reliability and efficiency of the

downloading process in a content delivery network.

Response to Arguments

5.   Applicant's arguments filed January 3, 2008, with respect to claim 1-6 have been

considered but are moot in view of the new ground(s) of rejection.

A.   Summary of Applicant's Arguments

In the remarks, the applicant argues as followings:

1) Regarding amended claims 1 and 4 and a new claim 6, each of the divided

information blocks are received from each of said multiple storage apparatus; and

B.   Response to Arguments:

In response to argument 1) Claims 1-6 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Chang et al. (U.S. Publication No. 2002/0178261 A1) in view of

Lassen et al. (U.S. Patent No. 7,072,971 B2) and further in view of Lisiecki et al. (U.S.

Publication No. 2002/0143888 A1) as explained above.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

   A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JEONG S. PARK whose telephone number is (571)270-

1597. The examiner can normally be reached on Monday through Friday 7:00 - 3:30

EST.

   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JP

March 4, 2008

/Joseph E. Avellino/
Primary Examiner, Art Unit 2143